Wildland Fire Decision Support System (WFDSS)
Draft Fire Management Unit (FMU) Geospatial Data Standard
(http://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml)
Updated 3/18/2010

Definitions:

FMP Fire Management Units (FMUs)
NWCG Definition: *A land management area definable by objectives, management constraints, topographic features, access, values to be protected, political boundaries, fuel types, major fire regime groups, etc. that set it apart from the characteristics of an adjacent FMU. The FMU may have dominant management objectives and pre-selected strategies assigned to accomplish these objectives.*

Fire Management Plan (FMP)
Guidance for Implementation of Federal Wildland Fire Management Policy (Feb 2009)
Definition: *A plan that identifies and integrates all wildland fire management and related activities within the context of approved land/resource management plans. It defines a program to manage wildland fires (wildfire and prescribed fire). The plan is supplemented by operational plans, including but not limited to preparedness plans, preplanned dispatch plans, prescribed fire burn plans and prevention plans. Fire Management Plan's assure that wildland fire management goals and components are coordinated.*

Land/Resource Management Plan (L/RMP)
Guidance for Implementation of Federal Wildland Fire Management Policy (Feb 2009)
Definition: A document prepared with public participation and approved by an agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The L/RMP identifies the need for fire's role in a particular area and for a specific benefit. The objectives in the L/RMP provide the basis for the development of fire management objectives and the fire management program in the designated area.

Data Source: Best available source with a target of NMAS 1:24,000 (1:63,360 for Alaska)
Data Format: Shapefile
Feature Type: Polygon
Geographical Coordinate System: GCS_North_American_1983
Datum: North American Datum 1983
Prime Meridian: Greenwich
Units: Decimal Degrees
Positional Accuracy: The Spatial data standard for the following spatial features will be based on the Federal Geographic Data Committee (FGDC), National Standard for Spatial Data Accuracy (NSSDA); Reference document FGDC-STD-007.3-1998 for both horizontal and vertical accuracy.
Metadata: FGDC compliant, Layer Level

WFDSS Layer Description: A land management area definable by strategic objectives, management requirements, topographic features, access, values to be protected, political boundaries, fuel types, major fuel regime groups, and so on that set it apart from the characteristics of the adjacent unit. It is represented spatially by a single shape.

Business Data Specifications:

This section identifies the business data that is needed for the GIS data layer.

Data Element Name	Data Abbreviation	Description	Req.	Length	Data Type	Example	Data Standard Reference
Land /Resource MP or Fire MP Unit Code or Name	FMU_Code	A user designated alpha/numeric code (or name) assigned to the L/RMP or FMP Units (FMU).	Yes	32	String (Text)	10 Or Grant Grove Peninsula	User Designated [1]
Unit Identifier	UNIT_ID	A particular organizational unit	Yes	7	String (Text)	NMGNF *	NWCG: Unit Identifier [2]
Land /Resource MP or Fire MP Unit Description or Name	FMU_DESC or Name	L/RMP or FMP Unit (FMU) Description or Name	No	128	String (Text)	Silver City Low Risk	User Selected

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[1] See page 4 and 5 - two examples of FMU Codes.

[2] NWCG Unit Identifier data standard - http://www.nwcg.gov/teams/pmo/products/standards/unit_id/cover.htm.

*Do not include a hyphen in the Unit_ID shape file attribute field.

Naming convention for FMP Unit (FMU) shapefile for national submission
FMU shapefiles are created locally and initially just for local use so as they roll up to a national layer the FMU file name will change. Zip all the files associated with the shapefile (*.shp, *.shx, *.dbf, *.prj *.xml, *.sbx, *.sbn).   The files should be zipped (*.zip) with the following file naming convention.

File naming convention:
Unit ID (or agency/region/geographic area)_FMP_FMU_creator_date.zip

File naming example*:*
NMGNF_FMP_FMU_creatorname_20090402.zip
or FS_R3_FMP_FMU_creatorname_20090402.zip
or RMCC_FMP_FMU_creatorname_20090402.zip
or AKR_FMP_FMU_creatorname_20090402.zip

FAQs:

1. **Can the FMU_Desc be the FMU common name?**
   Yes, the FMU_DESC can be the FMU common name, a geographic descriptor, or related to the dominant fire management objectives for that area, whatever is the easiest to reference the fire management objectives from the fire management plan to the particular polygon so long as it is 128 characters or less.

2. **Is there a problem having additional attribute fields within the layer?**
   If additional attribute fields are included they will be discarded by WFDSS. Please truncate attribute tables to only include UNIT_ID, FMU_CODE, and FMU_DESC.

3. **Does the FMU Code need to match the FMU shapefile attribute field FMU_Code?**
   Yes, the FMU Code the data manager enters in WFDSS to identify the strategic objectives and management requirements must be the same as the FMU code entered in the FMU shapefile attribute field for that fire management unit. See page 4 and 5 for examples.
   Note: If the spatial data are loaded before the manager enters the FMU codes in the WFDSS data management tab, the FMU codes from the spatial data will be populated in WFDSS. To ensure that the data match; only these codes should be used by the manager.

Rules:
- FMUs may be non-contiguous (two or more spatially defined locations that are not adjacent).
  - In cases where non-contiguous polygons share an FMU code the polygons should be singlepart and not multipart. To learn more about multipart versus singlepart polygons click here.

- FMU_Code must be a unique value for every FMU associated to a single unit.

- Although not recommended, the FMU_DESC or name can be a duplicate for more than one FMU in a single unit.

Rules (Cont.):

- Standard GIS topology is enforced. Shapefile polygon(s) should be free from slivers and overlaps. FMU boundaries may be matched to a base unit layer. For 2010 this edge matching might vary and may be an agency administrative boundary and/or national geographic area boundary.

- FMUs cannot be overlapping – one area on the ground has one and only one FMU.

- The FMU_CODE (name) entered by the WFDSS Data Manager must match the FMU Code in the FMU shapefile attribute table. The Data Manager and GIS Specialist must use the exact same FMU Code in WFDSS and the WFDSS FMU shapefile attribute table. Note the following two examples.

Example 1: FMU Code using text for the FMU Code (name).

FMU codes entered in WFDSS by the data manager role. This FMU Code must match the FMU_Code field in the FMU shapefile attribute table (below).
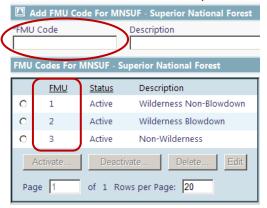

FMU shapefile attribute table. The field FMU_Code must match the FMU Code entered by the WFDSS Data Manager (above).
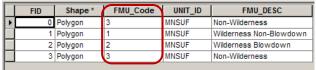
Example 2: FMU Code using numbers for the FMU Code (name).

FUM Codes entered in WFDSS by the data manager role.

FMU shapefile attribute table.

FID	Shape *	FMU_Code	UNIT_ID	FMU_DESC
0	Polygon	3	MNSUF	Non-Wilderness
1	Polygon	1	MNSUF	Wilderness Non-Blowdown
2	Polygon	2	MNSUF	Wilderness Blowdown
3	Polygon	3	MNSUF	Non-Wilderness

Data Posting/Updates:

The Interagency WFDSS GIS Team will be supporting the collection and processing of spatial data for the WFDSS project. Please contact one of the following for the ftp username and password to post FMU spatial data.

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